

REMARKS

Claims 1-12 are pending in the present application. Claims 1 and 7 have been amended, claim 4 has been canceled and new claims 11 and 12 have been added. In the amended claims, additions are underlined and deletions are shown using strikethrough or double brackets. The Examiner's allowance of claims 8-10 and the Examiner's indication that claim 4 contains allowable subject matter are once again noted with great appreciation.

Claims 1 and seven have been amended to include the subject matter of claim 4. Accordingly, claims 1 and 7 should now be allowable over the art of record.

New claims 11 and 12 call for each of the upper and lower linear motors for driving the X-axis slider to include a stator and a mover arranged on the base and the X-axis slider in opposed relation to each other so that attraction force of the stator acting on the mover reduces the load exerted on the X-axis guide of the X-axis slider in the gravitational direction. The effect of reducing the load in the gravitational direction exerted on the guide of the X-axis slider can be achieved by arranging the stator and the mover so that the attraction force of the stator acting on the mover has a component directed upwardly (in the opposite direction to a gravitational direction) to draw the X-slider upwardly through the mover. Therefore, the attraction force reduces the load exerted by the X-axis slider on X-axis guide in the gravitational direction to make it possible to move the X-slider at high speed (see the description on page 17, line 8, to page 18, line 31).

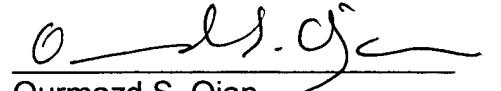
In contrast to the claimed invention, USP 5,662,568 discloses a numerically controlled machine tool in which the X-axis slider is driven by upper and lower linear motors and in which each of the linear motors includes a stator and a mover arranged on the frame member and gantry in opposed relation to each other. However, the stators and the movers are arranged so that the upper linear motor pulls upwardly (as indicated by the arrow A in Figs. 2 and 3 of USP'568) while the lower linear motor pulls downwardly (as indicated by the arrow B in Figs. 2 and 3) in order for these magnetic attractive forces to cancel each other (see the description on column 6, lines 53 - 67, in USP'568). Thus, although the upper linear motor can exert a force directed in a direction opposite the direction of the force exerted by gravity, the lower linear motor cannot do so.

For the reasons stated above, the applicant respectfully submits that claims 1, 7, 8, 11, and 12 are allowable over the applied art. Claims 2, 3, 5, and 6 and claims 9 and 10 depend from claims 1 and 8, respectively, and therefore should also be allowable. Therefore, the applicants respectfully submit that the present application is now in condition for allowance and a notice to that effect is earnestly solicited.

If in the Examiner's opinion that is not the case, the Applicants asks that the Examiner kindly contact the undersigned by telephone in an effort to resolve any outstanding issues as expeditiously as possible.

Respectfully submitted,

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